specific circumstances. The result is shown in Table 2.

In Table 2 (where numbers in the hundreds signify females), we can see from cases I and II that, under the influence of 1 ♂, 101 is privileged to be dominant over 2 ♂ and 3 ♂; likewise, 105, 108, 111, and 109 are privileged to be dominant over 3 ♂ in case I, but, when the influence of 1 ♂ is weakened in case II, that is, when he is situated far from the test box, then the dependent-rank effects on these four females are also weakened, and 3 ♂ recovers his basic dominance over these females. Case III shows the recovery of 2 ♂ in the absence of 1 ♂. In this case, 105 and 108 are once again privileged in the presence of 2 ♂ to be dominant over 3 ♂, as they were privileged in the presence of 1 ♂ in case I, but 111 and 109 are no longer so privileged. If the influence of 2 ♂ is weakened, as in case IV, 3 ♂ recovers his dominance as in case II. Finally, in case V, where the influence of 1 ♂ and 2 ♂ is completely lacking, 3 ♂ manifests his basic dominance over all the females. Females situated under 109 in the basic rank are not influenced by the presence or absence of any of the three adult males. Females which are privileged by consort relationship have been carefully excluded from Table 2.

TABLE 2

FEEDING RANK IN THE OIKIA OF KOSHIMA in 1957

Case	*1 ♂*	*2 ♂*	*Feeding Rank* *
I	+**	+	1, 101, 2, 105, 108, 111, 109, 3, 110 ...
II	+	+	1, 101, 2, 3, 105, 108, 111, 109, 110 ...
III	−	+	2, 101, 105, 108, 3, 111, 109, 110 ...
IV	−	+	2, 101, 3, 105, 108, 111, 109, 110 ...
V	−	−	3, 101, 105, 108, 111, 109, 110 ...

* Single-digit numbers represent male monkeys; numbers in the hundreds represent females.

** + and − indicate, respectively, the presence and absence of the animal.

From these observations, then, Kawai has determined the social status of each male and female oikion relative to its fellow-oikions. I reproduce his findings as Figure 2, following the same generalized schema already given as Figure 1. This is also a revision of Kawamura's schema (1956*a*) of the spatial distribution of oikions in this same oikia of Koshima, which was based on data obtained by him in 1954.

KINSHIP RELATION

If a higher dependent rank is accorded the infant of a more dominant female, and if, when this infant is female, the dependent rank is easily transformed into basic rank, as Kawai claims, it is expectable that basic rank among females will not correlate with age order, as is the case among males, but that the daughter of a dominant female will occupy a high status next to her dominant mother. This tendency has already been exemplified with reference to the oikia of Koshima (see basic rank of females in 1957, above), where 108 and 111 are daughters of 105.

This tendency reveals itself fully, however, in the oikia of Minoo-B, which has been intensively studied since 1954. This oikia is peculiar in that it has no male leader, though two adult males have spontaneously joined it from the neighboring oikia, Minoo-A. Kawamura says (1958: 149):

> It is recognized that there are two important principles forming the rank system of the Minoo-B Group. The first of them is that an infant is ranked after its mother's rank, and the second is that, among brothers and sisters, the younger is ranked higher than the older. In a supposed group of pure matriarchy, these two principles are combined and involve a rank system as shown in Fig. 1.

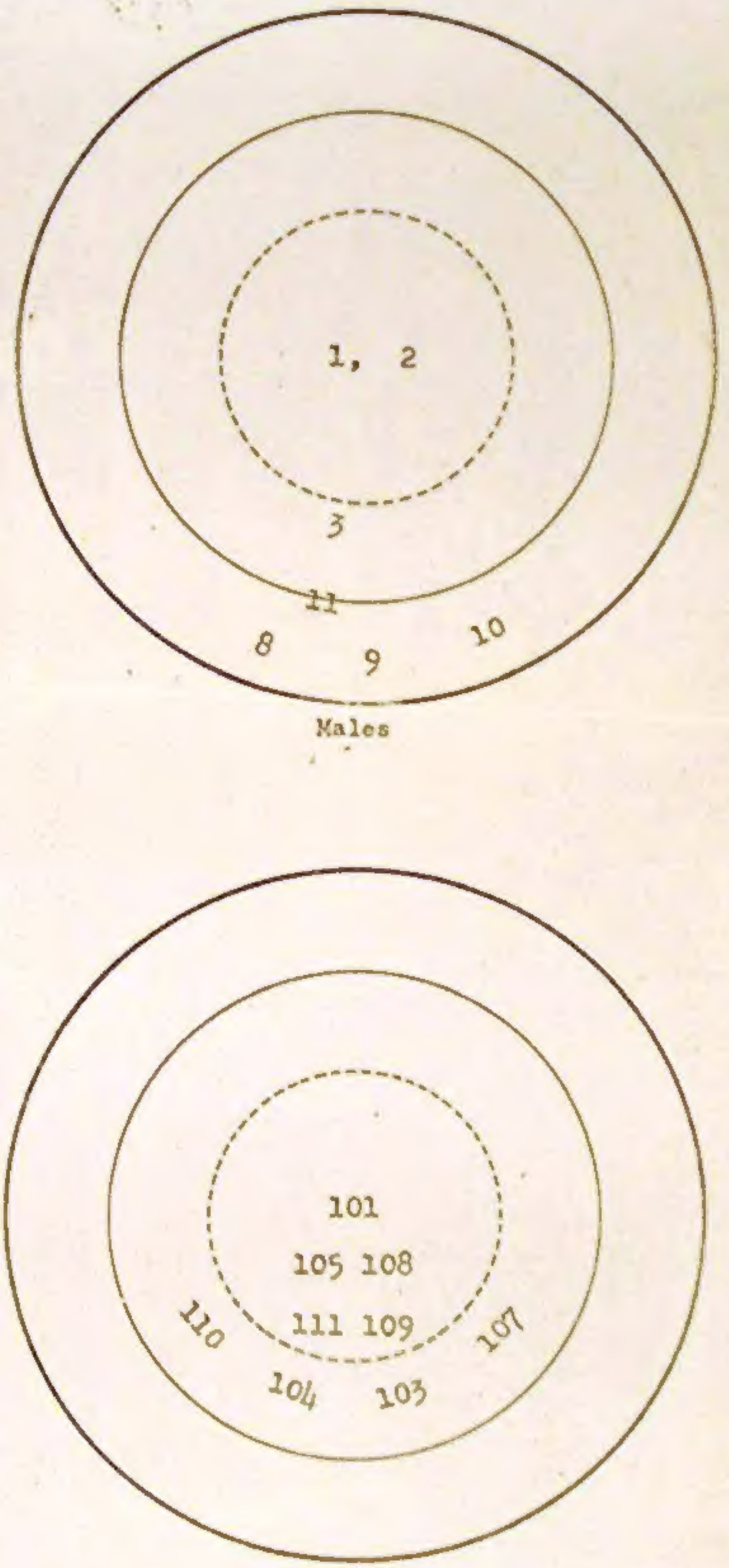

FIG. 2. Spatial distribution of oikions in the oikia of Koshima in 1957.

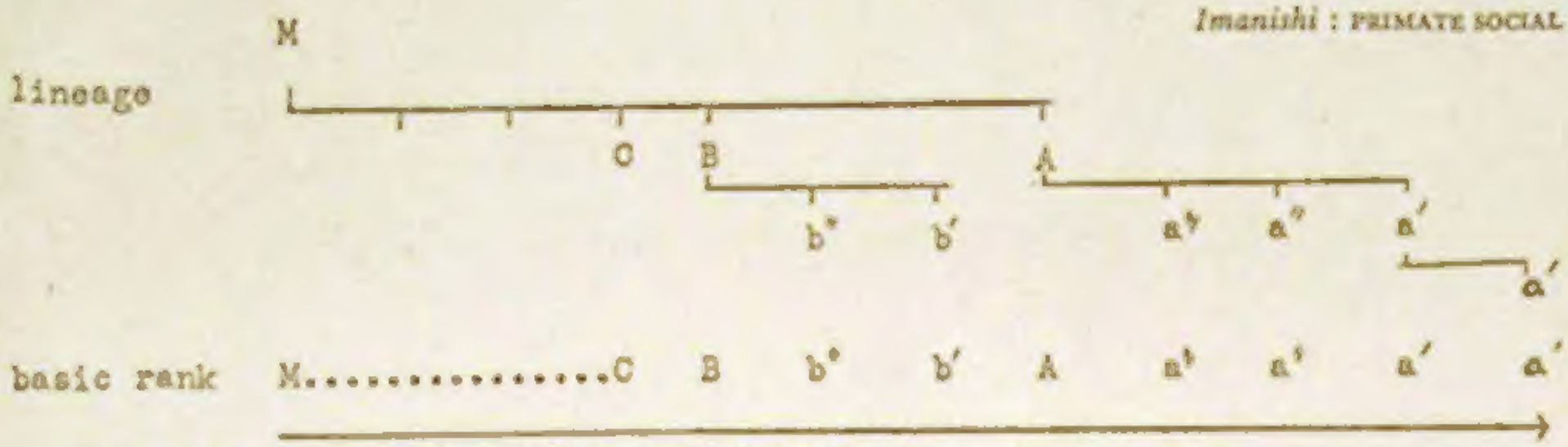

FIG. 3. Rank system of a hypothetical matriarchal and matrilineal oikia. M = mother; A, B, C, . . . = daughters; a', a''', a''', b', and b'' = grand-daughters; a'' = great grand-daughter. Ages of these individuals are A > B > C, a' > a''' > a''', and b' > b''.

His schema of the rank system of a hypothetical matriachal and matrilineal oikia is reproduced here (Fig. 3), together with the actual rank system found by him in the oikia of Minoo-B in 1958 (Fig. 4).

In Figure 4, oikions under three years of age have been omitted because they are so strongly under dependent-rank effect relative to their mothers' ranks that their basic rank cannot be adequately determined. Two young males shown in Kawamura's original report are also excluded from Figure 4 because they were already in process of peripherization in this matriarchal and matrilineal oikia. Figure 4 reveals one recognizable exception to the principle, in the relation between Buna and Nemu. Kawamura considers this to be due to the timid personality of Buna. In other oikiae, the younger daughter is not always ranked higher than the elder. In the oikia of Koshima, for instance, 108 is older but ranks higher than her sibling 111. Kawamura considers this to be due to dependent-rank effect relative to dominant males (e.g., see Table 2, case III).

Itani (1958), Kawamura (1956*b*), and Yamada (1957) have already pointed out that the process by which any oikion learns various habits and social relations is closely connected with its kinship position within the oikia. Imanishi (1957*b*) has suggested extending application of the concept "identification" from the socializing process among human primates to that among subhuman primates. That is, I have pointed out (1957*b*: 5) that:

> Children of dominant females involuntarily learn attitudes of the dominant and those of submissive females learn attitudes of the submissive. Moreover, children of dominant females in the central portion are more intimately related to the leader than those of submissive females in the peripheral portion, as their mothers are more intimately related to the leader.

Therefore, children of dominant females may be able to identify more smoothly with their leaders. Imanishi has written also (1957*a*: 53):

> If other things are equal, males growing up with successful identification will cooperate with leaders more willingly, be accepted by them as well as by females more easily, and finally succeed their leaders. . . .

In the oikia of Shodoshima-K, a young male was found, in the central part, making no move whatever toward peripherization. According to Kawamura (1959), Yamada recently observed that this young male had won the status of leader. Though he was assumed to be the son of some dominant female, proof was still wanting. I am inclined to agree with Kawamura's anticipatory opinion that, if this is the explanation, it represents one of many different courses by which young males become leaders.

EPILOGUE

Although there are various fruitful approaches to the study of subhuman primates in their natural habitat—e.g., the demographical, the ecological, the ethological, and the psychobiological—I have in this paper focused on the sociology of Japanese monkeys, and, in particular, on that which has been learned about certain central problems in social organization from the intensive observation of identified individuals over comparatively long time-spans.

Except for the question of a breeding season, the resolution of which does not necessarily require the identification of individuals, no structural and functional elements of primate social organization can, in my opinion, be definitely demonstrated except by the method of individual identification. Since the findings in the cited works by Zuckerman, Lumsden, Buxton,

FIG. 4. Pedigree and basic rank of females in the oikia of Minoo-B, 1958. Number in parentheses indicates the age of the individual.